

# Affordability

## Objectives

- Understand what causes water to be unaffordable
- Recognize how unaffordable water bills affect vulnerable populations
- Identify the ways that governments (federal, state, and local) and utilities can work to make water more affordable
- Take note of how community members can influence decision-making related to water affordability

## How Is Affordability Defined?

There are multiple ways to define “affordability.” Here, affordability seeks to convey that a household can pay for its water without having to sacrifice paying for or accessing other necessities related to housing, transportation, utilities, health care, food, and education. Low- and fixed-income households often face the choice of paying their water bill or paying for other competing priorities, such as medical or other utility bills, such as heat and electricity.<sup>1</sup>

Affordability must be understood and considered in relation to individuals and the financial context of households, not as a standalone measure. This section examines affordability with respect to customers. *For information about affordability considerations at the enterprise/provider level, and with respect to rate-setting, visit the [Utilities section](#).*

### 1. Why Affordability Matters

### 2. Considerations and Consequences Related to Water Affordability

- a. Defining and Measuring Water Affordability
- b. Population Loss and Oversized Infrastructure
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### 3. Affordability Policy and Practice: Federal Government

- a. Increase Funding and Low-cost Financing for Water Infrastructure
- b. Create Direct Assistance Programs
- c. Address Water Shutoffs

### 4. Affordability Policy and Practice: State Government

- a. Establish Affordability Standards
- b. Incentivize Affordability Efforts and Remove Policy Barriers
- c. Prioritize Funding, Low-cost Financing, and Technical Assistance
- d. Institute Water Loss Prevention and Efficiency Programs
- e. State Case Studies

### 5. Affordability Policy and Practice:

#### Local Government/Water Utility

- a. Set Equitable Rates and Transparent Billing Practices
- b. Create Customer Assistance Programs
- c. Develop Good Asset Management and Workforce Development Practices
- d. Assess Community Issues and Limit Water Shutoffs
- e. Local Government/Water Utility Case Studies

### 6. Additional Information and Resources

- a. Why Is Water Unaffordable?
- b. Impacts
- c. State Actions
- d. Utility Actions

<sup>1</sup> Sham, Written Chi Ho, Carolyn Gillette, Jumana Vasi, Vasi Consulting, Katherine Baer, and Paco Ollervides. “Drinking Water Guide: A Resource for Advocates.” Portland, OR: River Network, 2019. [https://www.rivernetwork.org/wp-content/uploads/2019/04/drinking\\_water\\_guide.pdf](https://www.rivernetwork.org/wp-content/uploads/2019/04/drinking_water_guide.pdf)

## WHY AFFORDABILITY MATTERS

Unaffordable water bills are a growing crisis in the United States. Between 2010 and 2019, the cost of water services grew by 57 percent in 30 major cities.<sup>2</sup>

American's racial wealth gap and generational poverty issues are perpetuated by unaffordable water bills. In many municipalities, the water department or water utility can disconnect water and place liens on homes with unpaid water bills. A lien means that the city or utility can make a legal claim on the property in order to collect on the unpaid water bills.<sup>3</sup> If a household ultimately cannot pay its past due bills within a certain time period, the city or utility can foreclose on the property and sell it to pay for the unpaid bills. Existing racial wealth gaps rooted in racist land use and home loan policies<sup>4,5,6</sup> mean that Black communities in particular, and other communities of color, are more likely to face economic insecurity, unaffordable water bills, possible water disconnection, and an increased risk of foreclosure and eviction.<sup>7</sup>

See the [Infrastructure](#) section for more information about how the physical state of water systems impacts affordability.

*Affordability—According to the Pacific Institute, water is affordable when its cost does not prohibit access to the resource, nor interfere with other essential expenditures (ex. food, shelter, electricity).*

### TAKEAWAY

- The rising cost of water and wastewater services must be understood within the context of a household's full financial situation.
- When water bills are unaffordable, low-income households are at risk of losing access to water, and possibly their homes and health.

2 Gallet, D., Pakenham, C., and Schneemann, M. (2020, February 7). *Water Affordability in Northeastern Illinois: Addressing Water Equity in a Time of Rising Costs*. Metropolitan Planning Council. <https://www.metroplanning.org/multimedia/publication/950>.

3 Montag, C. (2019, May). *Water/Color: A Study of Race and the Water Affordability Crisis in America's Cities*. The NAACP Legal Defense and Educational Fund, Inc. [https://www.naacpldf.org/wp-content/uploads/Water\\_Report\\_FULL\\_5\\_31\\_19\\_FINAL\\_OPT.pdf?ga=2.76987605.1172962889.1617385410-73927364.1617385410](https://www.naacpldf.org/wp-content/uploads/Water_Report_FULL_5_31_19_FINAL_OPT.pdf?ga=2.76987605.1172962889.1617385410-73927364.1617385410).

4 Gross, T. (2017, May 3). *A 'Forgotten History' Of How the U.S. Government Segregated America*. NPR. <https://www.npr.org/2017/05/03/526655831/a-forgotten-history-of-how-the-u-s-government-segregated-america>

5 Sabelhaus, J., and Clemens, A. (2020, July 27). *A Generational Perspective on Recent U.S. Homeownership Divergence by Income and Race*. Washington Center for Equitable Growth. <https://equitablegrowth.org/a-generational-perspective-on-recent-u-s-homeownership-divergence-by-income-and-race/>

6 Wilson, V. (2020, September 16). *Racial Disparities in Income and Poverty Remain Largely Unchanged Amid Strong Income Growth in 2019*. Economic Policy Institute. <https://www.epi.org/blog/racial-disparities-in-income-and-poverty-remain-largely-unchanged-amid-strong-income-growth-in-2019/>

7 Food and Water Watch. (2018). *America's Secret Water Crisis: National Shutoff Survey Reveals Water Affordability Emergency Affecting Millions* [PDF]. [https://foodandwaterwatch.org/wp-content/uploads/2021/03/rpt\\_1810\\_watershutoffs-web2.pdf](https://foodandwaterwatch.org/wp-content/uploads/2021/03/rpt_1810_watershutoffs-web2.pdf)

## CONSIDERATIONS AND CONSEQUENCES RELATED TO WATER AFFORDABILITY

The affordability of water service is influenced by several factors. First, there is not clear consensus about how to measure affordability, which makes it difficult to establish standards. Additionally, communities with significant population loss still have to maintain large water infrastructure systems yet have smaller populations from which to collect sufficient revenue, and this can result in higher water bills for individual households. Finally, old and aging water infrastructure is frequently overwhelmed by climatic changes or industrial and agricultural runoff, and necessary infrastructure upgrades are likely to be costly and burden low-income populations.

### Defining and Measuring Water Affordability

According to the [Pacific Institute](#), water is affordable when its cost is not prohibitive and does not interfere with other essential household costs (i.e. food, shelter, electricity)<sup>8</sup>. However, operationalizing this fairly simple concept has proven challenging.

Traditionally, affordability is determined by assessing the annual cost of water bills as a percentage of a community's median household income (MHI). Some Environmental Protection Agency (EPA)-related documents have been misconstrued to deem that affordability is met if combined fees for water and wastewater service do not exceed 4.5 percent of MHI, yet this metric lacks vital context. Most critically, MHI does not accurately capture or reflect household vulnerability within a community. Further, the percentage-of-MHI measure was meant to gauge whether a community has the ability (or financial capacity) to pay for infrastructure investments over time; it was not designed to consider or account for current affordability at the individual or household level.<sup>9</sup>

8 Pacific Institute and the Community Water Center. (2012, June). *Water Rates: Water Affordability - Issue Brief*. Pacific Institute. <https://pacinst.org/publication/water-rates-water-affordability-need-to-know-brief/>

9 Sham, C. H., Gillette, C., ERG, Vasi, J., Jvasi Consulting, Baer, K., and Ollervides, P. (2019). *Drinking Water Guide: A Resource for Advocates*. River Network. [https://www.rivernetwork.org/wp-content/uploads/2019/04/drinking\\_water\\_guide.pdf](https://www.rivernetwork.org/wp-content/uploads/2019/04/drinking_water_guide.pdf)

To provide a more nuanced look at water system finances and affordability, the American Water Works Association (AWWA) and other partners developed a new water affordability standard in 2019<sup>10</sup>. This new method looks at the prevalence of poverty in a community, and the combined impact of water, wastewater, and stormwater billing, to benchmark water affordability. The advised EPA Financial Capability Assessment<sup>11</sup> looks at two indices:

- Residential Indicator (a utility's ability to pay higher costs for needed infrastructure investments)
- Financial Capability Indicator (a utility's ability to obtain financing for and maintain for infrastructure investments).

The newly recommended methodology calls for the addition of the following metrics:

- Lowest Quintile Residential Indicator (cost per low-income household as a percentage of the Lowest Quintile Income)
- Poverty Indicator (five poverty indicators used to benchmark the prevalence of poverty within a service area)
  - o Percentage of Population with Income Below 200% of the Federal Poverty Level
  - o Percentage of Population with Income Below Federal Poverty Level
  - o the Upper Limit of the Lowest Income Quintile
  - o Lowest Quintile Income as a Percentage of Aggregate Income
  - o Percentage of Population Receiving Food Stamps/ SNAP Benefits<sup>12</sup>

Closer Look



*Looking at these four metrics together can better contextualize how prevalence of low-income households in a community affects how feasible it is for a utility to implement water rate increases as a means of paying for infrastructure investments.*

10 Raucher, R., Rothstein, E., and Mastracchio, J. (2019, April 17). *Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector*. The American Water Works Association.  
<https://www.awwa.org/Portals/0/AWWA/ETS/Resources/DevelopingNewFrameworkForAffordability.pdf?ver=2020-02-03-090519-813>

11 Czerwinski, S. J., Fretwell, E., Fosler, R. S., Lindsey, G., and Pagano, M. A. (2017). *Developing a New Framework for Community Affordability of Clean Water Services* (No. 2210; p. 233). National Academy of Public Administration.  
[https://s3.us-west-2.amazonaws.com/napa-2021/studies/developing-a-new-framework-for-community-affordability-of-clean-water-servi/NAPA\\_EPA\\_FINAL\\_REPORT\\_110117.pdf](https://s3.us-west-2.amazonaws.com/napa-2021/studies/developing-a-new-framework-for-community-affordability-of-clean-water-servi/NAPA_EPA_FINAL_REPORT_110117.pdf)

12 Office of Water. (2021). *2021 Financial Capability Assessment Guidance* (Draft Version) (p. 79). U.S. Environmental Protection Agency.  
[https://www.epa.gov/sites/production/files/2021-01/documents/2021\\_fca\\_guidance\\_-\\_january\\_13\\_2021\\_final\\_prepub.pdf](https://www.epa.gov/sites/production/files/2021-01/documents/2021_fca_guidance_-_january_13_2021_final_prepub.pdf)

As of January 2021, the suggested methodology is still under review by the EPA Water Infrastructure and Resiliency Finance Center,<sup>13</sup> and its adoption is not clear<sup>14</sup>. It's also important to remember that this new measure is still geared at helping the EPA assess capacity to pay for infrastructure investments at the community level, it does not to gauge affordability at the household level — in the 2020 [Beyond the Water Bill](#) report, CNT and IB Environmental applied this new standard to several communities to show the burden of current water bills on low-income households.

## Population Loss and Oversized Infrastructure

The ongoing operation and maintenance of a water system requires a proportionate customer base. Ideally, a water infrastructure network is “right-sized” in accordance with its service population, and no customer bears an outsized responsibility in funding infrastructure improvements.

When population size changes, it directly impacts the amount of revenue that a water utility can collect, and thus, its ability to make infrastructure investments. Areas that have had significant population loss (e.g. cities that experienced deindustrialization during the 1970s and 1980s) have large water systems that are overbuilt for current service needs. When a customer base is declining or otherwise unsuited to generate sufficient revenue, and there are few growth-based opportunities for new revenue streams (ex. new business tax dollars), necessary infrastructure investments become less viable. For small water systems, especially those that serve majority low-income communities, any level of infrastructure investment might be burdensome for the customer<sup>15</sup>.

Inadequate water infrastructure investment increases the risk of water main breaks and leaky pipes — the volume of treated water that is lost in transmission is often charged to the customer, which is another factor that can cause water bills to balloon.

*Right-sized infrastructure – Infrastructure is right-sized when the amount of gray water infrastructure (pipes, tunnels, treatment facilities) is proportional to the population*

### Quiz

**Families could be better equipped to afford water bills if they: (Choose all that apply)**

- a. Had access to billing assistance
- b. Obtained debt forgiveness
- c. Received bills based on income-level
- d. Were protected from water shutoffs

*Answer: a, b, c*

13 Office of Water. (2020, September 14). *2021 Financial Capability Assessment for Clean Water Act Obligations* [Overviews and Factsheets]. U.S. Environmental Protection Agency. <https://www.epa.gov/waterfinancecenter/2021-financial-capability-assessment-clean-water-act-obligations>

14 IB Environmental. (2021, March 5). What's on the Horizon for Measuring Water Utility Financial Capability? <https://www.ibenvironmental.com/blog/2021/2/26/whats-on-the-horizon-for-measuring-water-utility-financial-capability>

15 Martin, D. (2009, Summer). *Regionalization: A potential solution to affordability and capacity issues of small systems*. Rural Matters, 8–10. <https://www.rcap.org/wp-content/uploads/2016/01/RuralMatters-Summer2009-1.pdf>

## Quiz

Families are at risk for which of the following when they are unable to afford water bills?

(Choose all that apply)

- a. Foreclosure
- b. Eviction
- c. Family separation
- d. Poor credit
- e. Public health concerns

Answer: a, b, c, d, e

*Climate change – In the context of this toolkit, climate change refers to the extreme weather patterns that impact water cycles and water systems, including periods of increased rainfall or drought.*



Profile:

Jarome Montgomery

## Climate Change and Land Use Impacts

A changing climate (increasingly severe rain events, periods of drought, hotter days, etc.) also has a negative impact on water infrastructure. Fresh water supplies are being compromised, contaminated, and depleted through drought, and systems may need to be expanded to find new water sources. And extreme weather events can overwhelm older, less resilient water systems<sup>16</sup>.

Industrial agricultural practices, and factory water overuse and contamination, can be particularly taxing to water infrastructure and cause accelerated wear and tear. Furthermore, driven by property values, and the perceived economic and jobs boom, businesses are often incentivized to locate in economically disadvantaged communities<sup>17</sup> whose water systems and customer base may both be strained.

Overworked, aging infrastructure may be incapable of sufficiently treating polluted water –treatment facilities may require costly upgrades because older infrastructure was not created to address contaminants such as lead and per- and polyfluoroalkyl substances (PFAS), or there may be emerging contaminants that don't have treatment protocols yet. Again, replacing or fixing worn infrastructure comes with a cost, and these costs are frequently passed along to customers via water bills.

## Effects on Individuals and Households

The ability to afford clean and reliable drinking water is a cornerstone and foundational human right: Without water, individuals and households face a compounding set of social, environmental, and economic harms that can affect housing, earning ability, wealth creation, family stability, and personal and public health.

When a household's water service is shutoff, the community may place a lien on the home. This can result in foreclosure and eviction, which increases the risk of homelessness and mental health struggles, and increased rates of homelessness may weaken community morale<sup>18,19</sup>.

16 EPA. (2020, November 19). *Climate Impacts on Water Utilities*. EPA. <https://www.epa.gov/arc-x/climate-impacts-water-utilities>.

17 Singh, R. K. (2019, February 8). *U.S. Steel Wins Tax Breaks from One of America's Poorest Cities*. Reuters. <https://www.reuters.com/article/us-steel-gary-insight/u-s-steel-wins-tax-breaks-from-one-of-americas-poorest-cities-idUSKCN1PX17D>

18 Montag, C. (2019, May). *Water/Color: A Study of Race and the Water Affordability Crisis in America's Cities*. The NAACP Legal Defense and Educational Fund, Inc. [https://www.naacpldf.org/wp-content/uploads/Water\\_Report\\_FULL\\_5\\_31\\_19\\_FINAL\\_OPT.pdf?\\_ga=2.76987605.1172962889.1617385410-73927364.1617385410](https://www.naacpldf.org/wp-content/uploads/Water_Report_FULL_5_31_19_FINAL_OPT.pdf?_ga=2.76987605.1172962889.1617385410-73927364.1617385410)

19 Jones, P. A., and Moulton, A. (2016, May). *The Invisible Crisis: Water Unaffordability in the United States*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/Invisible%20Crisis%20-%20Water%20Affordability%20in%20the%20US.pdf>



Profile: [Nicole Hill](#)

Unaffordable water also impacts sanitation and public health outcomes. Clean water is essential to preventing the spread of disease, and handwashing and cleaning with water are important in maintaining public health<sup>20</sup> — during the COVID-19 pandemic, the Centers for Disease Control advised regular hand-washing and, in response, the American Water Works Association (a leading water industry membership organization) recommended that water utilities ban shutoffs and provided guidance on restoring water connections in households<sup>21</sup>. To ensure public safety, many municipalities did, indeed, declare shutoff moratoriums and restore connections<sup>22</sup>.

Without water billing assistance, debt forgiveness, and/or income-based water bills, vulnerable families can experience cascading social and economic impacts. Consider a child custody example, when not paying water bills can result in water shutoffs and an inability to pay for reconnection; given these circumstances, a household may be deemed unfit for children, and a social worker or state official may temporarily separate children from their families<sup>23</sup>, and studies show that family separation can negatively affect children’s mental well-being and development<sup>24</sup>.

## TAKEAWAY

- Failing to address the factors that impact water affordability will continue to financially burden low-income customers.
- Disconnected water service puts families at risk of foreclosure and eviction, creates public health concerns, and can exacerbate larger social and economic circumstances.

20 Jones, P. A., and Moulton, A. (2016, May). *The Invisible Crisis: Water Unaffordability in the United States*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/Invisible%20Crisis%20-%20Water%20Affordability%20in%20the%20US.pdf>

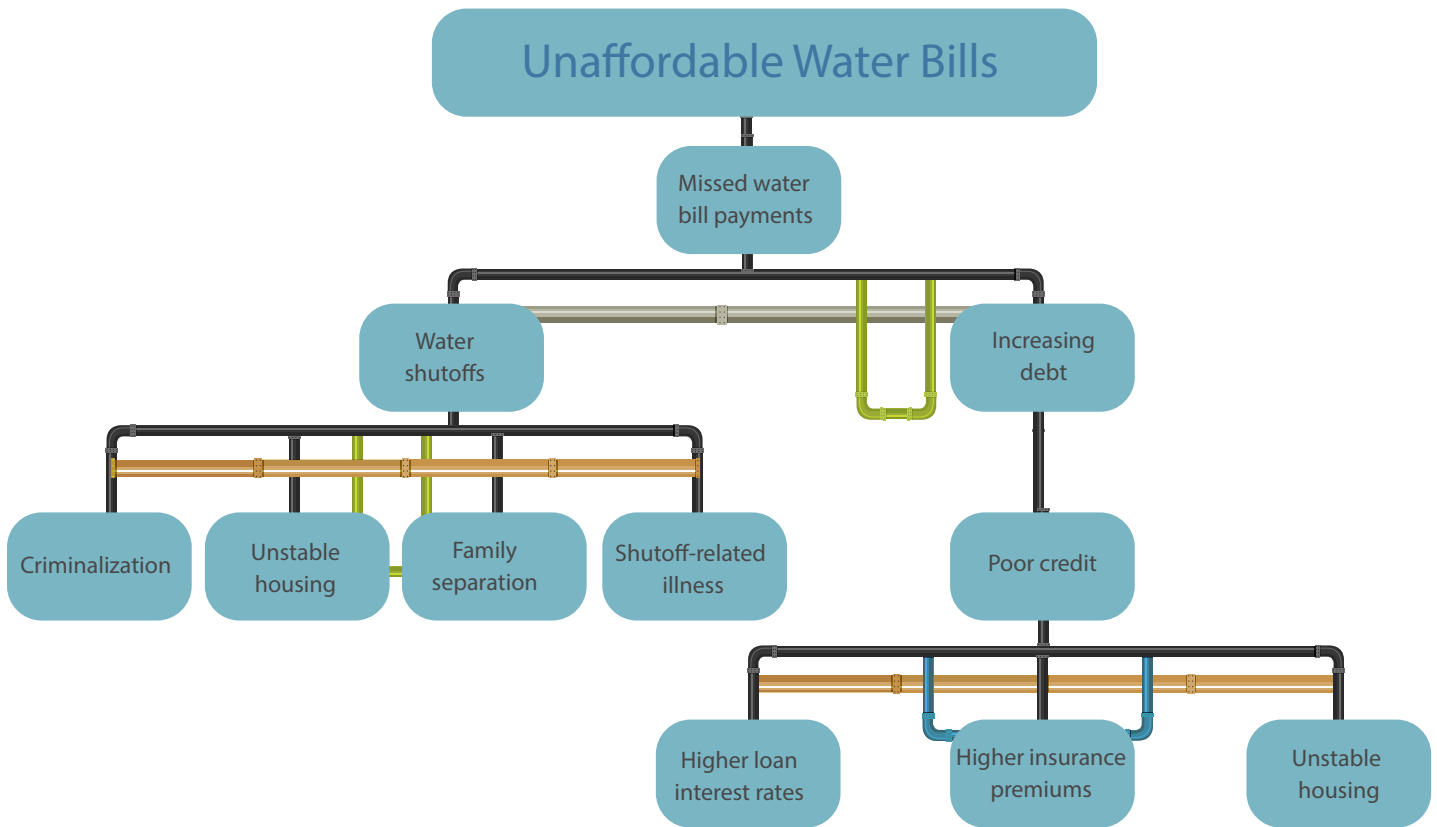
21 AWWA. (2021). *Coronavirus (COVID-19)*. American Water Works Association. <https://www.awwa.org/Resources-Tools/Resource-Topics/Coronavirus>.

22 NEADA. (2020, October 19). *Summary of State Utility Shut-off Moratoriums due to COVID-19*. NEADA.ORG. <https://neada.org/utilityshutoffsuspensions/>

23 Jones, P. A., and Moulton, A. (2016, May). *The Invisible Crisis: Water Unaffordability in the United States*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/Invisible%20Crisis%20-%20Water%20Affordability%20in%20the%20US.pdf>

24 Church, C., Mitchell, M., and Sankaran, V. (2017, May 1). *Timely Permanency or Unnecessary Removal? Tips for Advocates for Children Who Spend Less Than 30 Days in Foster Care*. American Bar Association. [https://www.americanbar.org/groups/public\\_interest/child\\_law/resources/child\\_law\\_practiceonline/child\\_law\\_practice/vol-36/may-june-2017/timely-permanency-or-un-necessary-removal--tips-for-advocates-for/](https://www.americanbar.org/groups/public_interest/child_law/resources/child_law_practiceonline/child_law_practice/vol-36/may-june-2017/timely-permanency-or-un-necessary-removal--tips-for-advocates-for/)





### AFFORDABILITY POLICY AND PRACTICE: FEDERAL GOVERNMENT

Federal policies and programs are critical because they offer opportunities to equitably fund and implement water infrastructure, and they can set the stage for water affordability and equity successes at the local level.

Closer Look



*This toolkit was published during the waning phase of the COVID 19 global pandemic and at the start of a new federal administration, so federal legislation aimed at supporting communities and residents is frequently changing; for affordability-specific announcements at the federal level, track [congressional legislation](#), [EPA announcements](#), and also subscribe to the [River Network Federal Water Policy Update Peer Group](#).*



To support water affordability and equity outcomes, federal entities can:<sup>25, 26</sup>

- increase low-cost financing and funding for water infrastructure projects across the board.
- create direct assistance, water efficiency, and water loss prevention programs.
- discourage water shutoffs for customers who are unable to pay.

Each of these strategies must be informed by equity- and income-based eligibility criteria to ensure that federally funded programs prioritize vulnerable communities and improve affordability outcomes.

## Increase Funding and Low-Cost Financing for Water Infrastructure

Throughout the 20th century, the federal government has been substantively involved in the investment of local water infrastructure<sup>27</sup>. In fact, much of the funding made available at the federal level in the 1970s and 1980s was in the form of grants. Since the early 1990s, federal support in local infrastructure upgrades has been minimal, and where it does exist, is predominately in the form of loans, thus leaving local and state governments to cover the high costs of major infrastructure upgrades.

However, according to a 2019 [Environmental and Energy Study Institute report](#), Congress has shown more interest in supporting resilient water infrastructure, which may help improve water affordability and equity outcomes at the local level<sup>28</sup>. At the federal level, Congress can authorize programs that offer low-cost financing (e.g. low-interest loans or tax-exempt bonds) or block grants for critical water infrastructure investments<sup>29</sup>.

### Quiz

How can the federal government promote equity in water affordability policy? (Choose all that apply)

- Prioritize funding support to low-capacity local governments
- Create a consumer bill of rights for water
- Increase high-cost financing opportunities to local governments
- Ban water shutoffs for households that cannot afford water bills
- Develop customer assistance programs for low-to-moderate-income, vulnerable households.

Answer: a, b, d, e

25 Enobakhare, R., Blount, L. G., Boyd, T., Gavin, V., Smith, K., Hammer, B., ... Rose, K. (2018, October 23). *Water, Health, and Equity: The Infrastructure Crisis Facing Low-Income Communities and Communities of Color — and How to Solve It. Clean Water for All.* [https://www.policylink.org/sites/default/files/CWC\\_Report\\_Full\\_report\\_lowres.pdf](https://www.policylink.org/sites/default/files/CWC_Report_Full_report_lowres.pdf)

26 Jones, P. A., and Moulton, A. (2016, May). *The Invisible Crisis: Water Unaffordability in the United States.* US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/Invisible%20Crisis%20-%20Water%20Affordability%20in%20the%20US.pdf>

27 Bartlett, Steve, Henry Cisneros, Patrick Decker, George Heartwell, Aldie Warnock, Michele Nellenbach, Sarah Kline, Andy Winkler, Jake Varn, and Bryce Campanelli. "Safeguarding Water Affordability." Washington DC: Bipartisan Policy Center, September 2017. <https://bipartisanpolicy.org/wp-content/uploads/2019/03/BPC-Infrastructure-Safeguarding-Water-Affordability.pdf>

28 La Shier, B., Stolark, J., and Vaughan, E. (2019, April 10). *Issue Brief: Congressional Action on Resilient Infrastructure - Areas of Progress and Future Needs.* EESI. <https://www.eesi.org/papers/view/issue-brief-congressional-action-on-resilient-infrastructure-areas-of-progress-and-future-needs>

29 WIFIA. (2020, February). *WIFIA 2019 Annual Report.* Environmental Protection Agency. [https://www.epa.gov/sites/production/files/2020-02/documents/wifia\\_2019\\_annual\\_report.pdf](https://www.epa.gov/sites/production/files/2020-02/documents/wifia_2019_annual_report.pdf)

## Quiz

Which of the following are barriers water utilities/departments face when accessing federal financing opportunities?

(Choose all that apply)

- a. Poor credit ratings
- b. Lack of staff time to apply to opportunities
- c. Poor financial health to pay back loans
- d. Lack of shovel-ready projects
- e. Complicated application processes
- f. Lack of knowledge about opportunities

Answer: a, b, c, d, e, f

The Environmental Protection Agency is often responsible for implementing the funding and financing programs that are authorized by Congressional Acts (for example, the Drinking Water State Revolving Fund (SRF) is authorized by the Safe Drinking Water Act.<sup>30</sup>) In 2016, the Bipartisan Policy Center published “[America’s Aging Water Infrastructure](#),” which outlined federal water infrastructure funding and financing programs<sup>31</sup>. [The Federal Programs that Fund Water/Wastewater Infrastructure](#) table outlines a variety of federal water infrastructure programs.

While many programs do have equity criteria and prioritize economically disadvantaged communities, those programs rarely are sufficiently funded, and in many cases, they offer financing (loans) which, even if low-interest, may not be accessible to low-income communities or communities with poor credit ratings. Increasing funding is critical to help utilities make the needed investments in their water supply and wastewater system without passing on rate hikes to their customers and creating an affordability burden — as the Clean Water for All Coalition notes in its 2018 “[Water, Health, and Equity](#)” resource, “increased funding for water infrastructure is mutually beneficial to several federal spending priorities, including environmental protections, public health, and economic stability.”<sup>32</sup>

Closer Look



*An Economic Policy Institute estimate found that spending \$188.4 billion on water infrastructure over a five-year period would yield \$265 billion in economic activity and create 1.9 million jobs.*<sup>33</sup>

Increased water infrastructure funding, however, must be targeted and distributed equitably. Eligibility criteria should look beyond shovel-readiness (i.e. projects that can enter into construction) and established asset management practices (e.g. a comprehensive strategy and plan for updating infrastructure), as many lower-

30 EPA. (2020, May 14). How the Drinking Water State Revolving Fund Works. EPA. <https://www.epa.gov/dwsrf/how-drinking-water-state-revolving-fund-works>.

31 Bipartisan Policy Center. (2016, September). *America’s Aging Water Infrastructure*. Bipartisan Policy Center. <https://bipartisanpolicy.org/wp-content/uploads/2019/03/BPC-Aging-Water-Infrastructure.pdf>.

32 Enobakhare, R., Blount, L. G., Boyd, T., Gavin, V., Smith, K., Hammer, B., Rose, K. (2018, October 23). *Water, Health, and Equity: The Infrastructure Crisis Facing Low-Income Communities and Communities of Color — and How to Solve It. Clean Water for All*. [http://protectcleanwater.org/wp-content/uploads/2018/10/FINAL-CWC\\_Report\\_Full\\_report\\_lowres-003-3.pdf](http://protectcleanwater.org/wp-content/uploads/2018/10/FINAL-CWC_Report_Full_report_lowres-003-3.pdf)

33 Gordon, E., Hays, J., Pollack, E., Sanchez, D., and Walsh, J. (2011). *Water works: Rebuilding infrastructure, creating jobs, and greening the environment*. Economic Policy Institute. <https://www.epi.org/publication/water-works-infrastructure-report/>.

resourced communities do not have capacity or cannot demonstrate such criterion without additional support and assistance. In 2015, the Metropolitan Planning Council and Metropolitan Mayors Caucus interviewed several Illinois water utilities about their experience seeking and procuring State Revolving Fund loans, and even some relatively high-capacity communities indicated that the application process is complicated and the producing the required paperwork is overly arduous, which suggests that low-capacity communities also would face similar barriers to submit complete and competitive applications in a timely manner<sup>34</sup>.

The application process for federal funding should be streamlined and criteria should prioritize disadvantaged communities that may need targeted support planning, implementing, and monitoring programs or projects. There should also be outreach to low-capacity communities that may lack the staff or time to identify funding opportunities to offer needed support so they can submit complete, on-time applications.



34 Metropolitan Planning Council. (n.d.). *Let the Dollars Flow: Streamlining Illinois' State Revolving Fund*. Metropolitan Planning Council. <https://www.metroplanning.org/work/project/16/subpage/3>.

## Environmental Protection Agency (EPA)

<b>Program</b>	Clean Water State Revolving Fund		
<b>Description</b>	EPA provides grants to states, who then provide low-interest loans for wastewater treatment infrastructure, nonpoint pollution management, and estuary programs.		
<b>Funding (grants) or Financing (Loans)?</b>	Both	<b>Level of Funding</b>	2019: \$1.9 billion in federal capitalization dollars; \$260 million in additional subsidies for direct grants and principal forgiveness
<b>Equity Provision?</b>	Yes; federal statute requires that a certain percentage of loan funds be set aside (direct grants or principal forgiveness) for communities that can demonstrate economic hardship in the application phase		

<b>Program</b>	Drinking Water State Revolving Fund		
<b>Description</b>	EPA provides grants to states, who then provide loans for drinking water infrastructure		
<b>Funding (grants) or Financing (Loans)?</b>	Both	<b>Level of Funding</b>	2019: \$1.1 billion in federal capitalization dollars; \$321 million in additional subsidies for direct grants and principal forgiveness
<b>Equity Provision?</b>	Yes; federal statute requires that a certain percentage of loan funds be set aside (direct grants or principal forgiveness) for communities that can demonstrate economic hardship in the application phase		

### Environmental Protection Agency (EPA)

<b>Program</b>	Water Infrastructure Finance and Innovation Act (WIFIA)		
<b>Description</b>	EPA provides low-interest (i.e. below market rate) loans to finance water infrastructure improvement projects		
<b>Funding (grants) or Financing (Loans)?</b>	Loans	<b>Level of Funding</b>	2020: \$6 billion in loans to finance \$12 billion in infrastructure investment projects
<b>Equity Provision?</b>	Yes and No —WIFIA funding criteria are “project impact, project readiness, and borrower creditworthiness,” and while project impact considers benefit to economically distressed areas, those communities may have poor credit and lack capacity to develop shovel ready projects (so funding requests may be denied).		

### Department of Commerce, Economic Development Administration

<b>Program</b>	Public Works and Economic Development Program		
<b>Description</b>	Department of Commerce grants to small and disadvantaged communities to construct public facilities, including drinking water and wastewater facilities		
<b>Funding (grants) or Financing (Loans)?</b>	Grants (with some match requirements)	Level of Funding	2020: \$1.5 billion allocated from the CARES act for communities impacted by COVID 19; 2018: approximately \$150 million spent for public works projects
<b>Equity Provision?</b>	Yes; projects designed to drive down unemployment numbers are prioritized, and economically distressed to communities receive technical assistance		



U.S. Army Corps of Engineers			
<b>Program</b>	Corps Water Infrastructure Financing Program (CWIFP)		
<b>Description</b>	Army Corps of Engineers provides assistance for water and wastewater infrastructure projects, for specific locations (as authorized by Congress Appropriations Act)		
<b>Funding (grants) or Financing (Loans)?</b>	Loans	Level of Funding	2020: \$14.2 million allocated from FY 2021 Energy and Water Development and Related Agencies Appropriations Act <sup>35</sup>
<b>Equity Provision?</b>	No; eligible projects aim to reduce flood damage, restore aquatic ecosystems, improve waterway or coastal inland harbor navigation, and/or acquire property (or some combination of the above ) <sup>36</sup>		

U.S. Army Corps of Engineers			
<b>Program</b>	Environmental Infrastructure Assistance <sup>37</sup>		
<b>Description</b>	Army Corps of Engineers provides support in planning, design, and construction of drinking water and wastewater infrastructure projects in specific jurisdictions; funded projects must be named in Congress authorizing language		
<b>Funding (grants) or Financing (Loans)?</b>	Grants (with some match requirements)	Level of Funding	2021: \$100 million appropriated 2020: \$100 million appropriated
<b>Equity Provision?</b>	None specified		

35 Marine Log Staff. (2021, January 6). *USACE: CWIFP Gets First Funding*. Marine Log. <https://www.marinelog.com/coastal/inland/usace-cwifp-gets-first-funding/>.

36 U.S. Army Corps of Engineers. (2021). *CWIF Program Eligibility*. U.S. Army Corps of Engineers Headquarters Website. [https://www.usace.army.mil/Missions/Civil-Works/Infrastructure/Revolutionize/CWIFP/cwif\\_prog\\_eligibility/](https://www.usace.army.mil/Missions/Civil-Works/Infrastructure/Revolutionize/CWIFP/cwif_prog_eligibility/).

37 Normand, A. E. (2021, January 26). *Army Corps of Engineers: Environmental Infrastructure Assistance* (p. 3). Congressional Research Service. <https://crsreports.congress.gov/product/pdf/IF/IF11184>.

Bureau of Reclamation			
<b>Program</b>	Rural Water Supply Program <sup>38</sup>		
<b>Description</b>	Bureau of Reclamation provides assistance for individual projects and other projects via its rural water supply program		
<b>Funding (grants) or Financing (Loans)?</b>	Loans (primarily); grants available for traditional tribal reservation communities	Level of Funding	2020: \$145.1 million appropriated for construction operations and management
<b>Equity Provision?</b>	Yes; prioritizes rural and tribal reservation communities with poor, declining, or lacking water supply, or compromised water quality		

Department of Health and Human Services (DHHS), Indian Health Service (IHS)			
<b>Program</b>	Sanitation Facilities Construction Program		
<b>Description</b>	IHS provides funding for water and wastewater infrastructure on tribal lands		
<b>Funding (grants) or Financing (Loans)?</b>	Grants	Level of Funding	Unable to find recent data
<b>Equity Provision?</b>	Yes; IHS allocates funds based on eight (8) criteria: health impact, deficiency level, adequate previous service, capital cost, local tribal priority, operations and maintenance capability, contributions, and local conditions. In its 2003 Program Criteria report, IHS states, “[Program] Equity is achieved in terms of equivalent outcomes rather than equal shares of any allocation <sup>39</sup> .”		

38 Normand, A. E. (2020, April 7). *Bureau of Reclamation Rural Water Projects* (p. 21). Congressional Research Service. [https://www.everycrsreport.com/files/20200407\\_R46308\\_e04882b7ee5c51431330d195cbb484a03299651f.pdf](https://www.everycrsreport.com/files/20200407_R46308_e04882b7ee5c51431330d195cbb484a03299651f.pdf)

39 Office of Environmental Health and Engineering and Division of Sanitation Facilities Construction. (1999). *Criteria for the Sanitation Facilities Construction Program 2003* (p. 206). Department of Health and Human Services, Department of Public Health Service, and Department of Indian Health Service. [https://www.ihs.gov/sites/dsfc/themes/responsive2017/display\\_objects/documents/Criteria\\_March\\_2003.pdf](https://www.ihs.gov/sites/dsfc/themes/responsive2017/display_objects/documents/Criteria_March_2003.pdf)



**Department of Agriculture, Rural Development**

<b>Program</b>	Water and Environmental Programs (WEPs)		
<b>Description</b>	Department of Agriculture provides funding for water and wastewater infrastructure projects in communities with populations less than 10,000		
<b>Funding (grants) or Financing (Loans)?</b>	Both	Level of Funding	2016: \$1.7 billion appropriated for loans and grants
<b>Equity Provision?</b>	Yes; several Water and Environment grant programs target native Alaskan villages, tribal lands, and colonies, and decentralized water systems, and offer crucial technical assistance and training		

**Create Direct Assistance Programs**

Federal direct assistance program would provide grants to municipalities and utilities expressly to improve water bill affordability for low- to moderate-income, vulnerable populations.<sup>40</sup>

There is federal precedent for utility direct assistance programs. Established in the early 1980s, the Low-Income Home Energy Assistance Program (LIHEAP) authorizes block grant funds to states, tribes, and territories to operate energy assistance programs, and offers emergency contingency funding that has a flexible allocation protocol; states must comply with 16 program assurances, including requirements around outreach, type of assistance offered, and income-based eligibility requirements.<sup>41</sup> LIHEAP has long enjoyed bipartisan support, in large part because of the easy-to-quantify public health benefits; for example, during hot summers or cold winters, LIHEAP subsidies ensure that low-

40 Nellenbach, M., Winkler, A., Yohannes, M., Ledonio, N., and Xiao, R. (2020, September). *Evaluating Proposals for a Federal Water Bill Assistance Program*. Bipartisan Policy Center. [https://bipartisanpolicy.org/wp-content/uploads/2020/09/BPC\\_WaterBillAssistanceProgram-final.pdf](https://bipartisanpolicy.org/wp-content/uploads/2020/09/BPC_WaterBillAssistanceProgram-final.pdf).

41 Nellenbach, M., Winkler, A., Yohannes, M., Ledonio, N., and Xiao, R. (2020, September). *Evaluating Proposals for a Federal Water Bill Assistance Program*. Bipartisan Policy Center. [https://bipartisanpolicy.org/wp-content/uploads/2020/09/BPC\\_WaterBillAssistanceProgram-final.pdf](https://bipartisanpolicy.org/wp-content/uploads/2020/09/BPC_WaterBillAssistanceProgram-final.pdf).

income households can pay their bills and avoid having their heat or air conditioning shut off. In 2020, Congress appropriated more than \$3 billion for LIHEAP block grants, and an additional \$900 million was made available for emergency support.

Given that both the water and energy sectors provide necessary services, both industries should have considerations that allow for equitable access to their respective resources. A Bipartisan Policy Center report evaluated proposals for water bill assistance programs and identified some of the lessons the water sector can learn from the energy sector — these lessons include avoiding duplication of program missions (which can be confusing for households), targeting those with the highest need, as defined by greatest burden on household income, and recognizing federal fiscal constraints to ensure future sustainability of direct assistance offers<sup>42</sup>. Additionally, in 2018, the [Low-Income Water Customer Assistance Program Act](#) was introduced in Congress (it did not pass), and it offers an example of what a federally administered direct assistance program could look like.

During the COVID-19 pandemic, in April 2020, U.S. House representatives submitted [H.R. 6552 - Emergency Water is a Human Right](#), which proposes the creation of a grant program to help low-income households afford drinking water and wastewater services. Adopting The Act would authorize a pilot program that would award mini-grants to water system operators to develop and implement customer assistance programs (CAPs), including percentage-of-income payment plans, direct billing assistance, lifeline rates, bill discounts, household conservation retrofits, among other efforts. The Act also required that utilities provide financial sustainability plans and would provide technical assistance to communities who needed support implementing the CAPs.<sup>43 44</sup>

Lessons learned from energy sector.

42 Nellenbach, M., Winkler, A., Yohannes, M., Ledonio, N., and Xiao, R. (2020, September). Evaluating Proposals for a Federal Water Bill Assistance Program. Bipartisan Policy Center. [https://bipartisanpolicy.org/wp-content/uploads/2020/09/BPC\\_WaterBillAssistanceProgram-\\_final.pdf](https://bipartisanpolicy.org/wp-content/uploads/2020/09/BPC_WaterBillAssistanceProgram-_final.pdf).

43 Levine, L. (2018, October 31). *New Bipartisan Bill Aims to Advance Water Affordability* [web log]. <https://www.nrdc.org/experts/larry-levine/new-bipartisan-bill-aims-advance-water-affordability>.

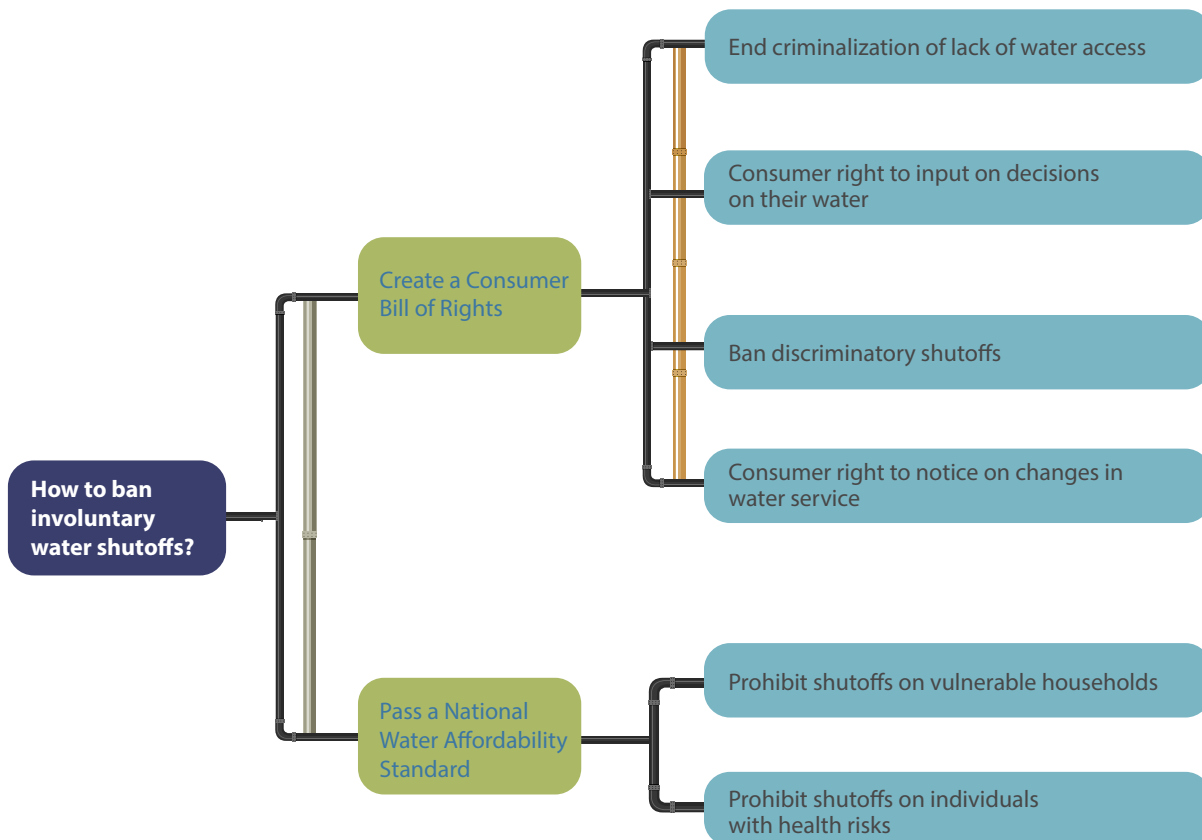
44 Jones, P. A., and Moulton, A. (2016, May). *The Invisible Crisis: Water Unaffordability in the United States*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/Invisible%20Crisis%20-%20Water%20Affordability%20in%20the%20US.pdf>

## Address Water Shutoffs

Water shutoffs are still a common practice, even during the COVID-19 pandemic — Natural Resources Defense Council (NRDC) analysis showed that a majority of states had not issued shutoff moratoriums, which disproportionately impacted low-income and BIPOC communities<sup>45</sup>.

Federal efforts to ban (or at least limit) shutoffs would offer a layer of protection to already vulnerable households with burdensome energy, transportation, and housing costs, and those who can demonstrate financial need. And shutoff bans should be accompanied by increased for necessary and resilient water infrastructure investments that guarantee economically-disadvantaged communities reliable access to clean drinking water.

### Opportunities to Ban Involuntary Water Shutoffs



45 Levine, L. (2020, December 17). *Mass Water Shutoffs Loom, Most States and the Feds Remain AWOL* [web log]. <https://www.nrdc.org/experts/larry-levine/mass-water-shutoffs-loom-most-states-feds-remain-awol>.

Which of the following actions by utilities address the root causes of unaffordable water bills?

- Equitable rate structuring for water bills
- Customer assistance programs
- Improved asset management
- Moratorium on water shutoffs
- Accurate water use metrics
- Providing households with water efficiency measures

Answers: a, b, c, e, f

The 2016 Unitarian Universalist Service Committee “[The Invisible Crisis: Water Unaffordability in the United States](#)” report offers key insights into how federal policies can promote equity by banning involuntary water shutoffs. It recommends the creation of a consumer bill of rights that highlights the importance of legal support when trying to maintain utility services, and passing a national affordability standard to better ensure equitable outcomes (see above [Opportunities to Ban Involuntary Water Shutoffs](#)).

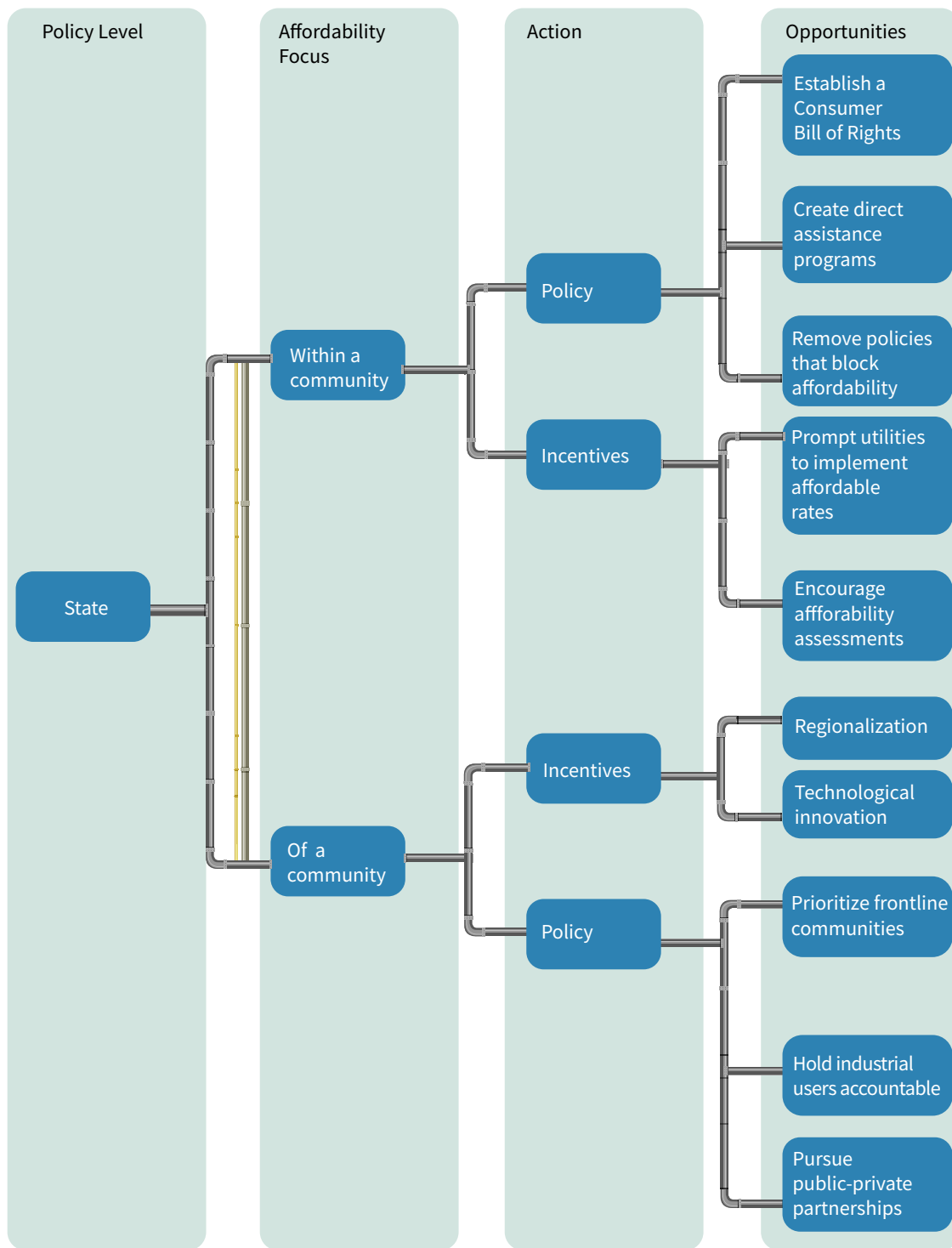
If [H.R. 6552 - Emergency Water is a Human Right](#) had passed, water shutoffs would have been prohibited during the COVID-19 pandemic, and provided \$1.5 billion in grants to assist low-income households who pay a high percentage of their household income for drinking water and wastewater service<sup>46</sup>. While the bill did not make it out of committee, it will likely be reintroduced, and it remains an important example of how the federal government can support affordability and equity outcomes (notwithstanding an epidemic or pandemic).

## TAKEAWAY

- The federal government has the power to earmark monies and authorize water infrastructure funding and financing programs. Through these programs, federal agencies can prioritize vulnerable communities by offering administrative and technical assistance in addition to grants
- There have been several federal legislative attempts to address the water affordability, ranging from funding direct assistance programs to banning involuntary water shutoffs.
- Federal financing and funding opportunities need to include equity provisions to ensure that communities with low-income residents can access opportunities. Such measures include analyzing and removing barriers that are tied to financial capacity, and providing funding from the start to end of a project, including administrative costs.
- The Low-Income Home Energy Assistance Program (LIHEAP) is an established, successful example of the federal government providing bill assistance directly to low-income households, and lessons learned from this program can inform a direct assistance program for water affordability.

<sup>46</sup> House - Energy and Commerce; Education and Labor; Transportation and Infrastructure, and Tlaib, R. R. [Bill], Congress.gov (2020). <https://www.congress.gov/bill/116th-congress/house-bill/6552?s=1&r=5>.

State Actions to Support Water Affordability



## AFFORDABILITY POLICY AND PRACTICE: STATE GOVERNMENT



Profile:

[RI State Treasurer Seth Magaziner](#)

State governments have significant responsibility as it pertains to moving the needle on water affordability and equity outcomes. A useful approach to classifying this work is to think about affordability *within a community* and *of a community*.<sup>47</sup> Affordability *within a community* means that local utilities address water affordability at the household level. *Of a community* refers to the community’s collective ability to afford water and related water infrastructure, also often referred to as its “capacity.” (See State Actions to Support Water Affordability for a diagram of the policies and incentives that state legislatures can enact to support local utilities in both spaces.)

As the frequent administrators of federal funding and financing, states can tailor the sometimes-broad federal guidelines to ensure that their communities have clear guidance and support to implement successful initiatives. State governments can influence and support water affordability efforts in a variety of ways<sup>48</sup>; specifically, states can:

- establish affordability standards.
- enact policies that incentivize and remove barriers to affordability efforts.
- prioritize funding and low-cost financing in achieving affordability outcomes.
- institute water loss prevention and efficiency programs.

<sup>47</sup> *State Insights on Renewing a Cross-Government for Water Affordability*. Aspen Institute. (2020, October 22). [https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10\\_22\\_2020\\_final.pdf](https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10_22_2020_final.pdf)

<sup>48</sup> Berry, S., and Huckins, S. (2019). *One Water for America State Policymakers’ Toolkit*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/publications/State%20Policymakers%27%20Toolkit.pdf>

## Establish Affordability Standards

Having a clear sense of what customers can afford is critical — traditionally, utilities and government policies have defined affordability by looking at percentage of median household income, but this approach is limited because it was not developed to measure household affordability, and it does not consider community context (e.g. poverty levels or impacts on the lowest income households). The result is that the affordability impacts are not considered for the 50 percent of households that fall below a jurisdiction’s median income<sup>49</sup>.

The American Water Works Association and other partners proposed a new water affordability method in 2019 to consider and set more accurate local affordability standards that inform rates, customer assistance programs (CAPs), and other means that affect water affordability. This new method looks at the prevalence of poverty in a community, and the collective impact of water, wastewater, and stormwater bills to benchmark water affordability<sup>50</sup>. CNT created an interactive [Water Bill Calculator](#) that utilities or individuals can use to calculate water bill burden at the household and community level.

States can develop a tailored approach to provide more responsive affordability standards. To do so, states will need to better capture the number of people who cannot afford water and address the lack of consolidated data about how utilities establish water rates and charge for their services. One strategy states could consider is developing a dataset of all the households with unaffordable water bills and/or who have had water services shut off, and assessing how utilities manage non-payment.<sup>51</sup> States need to be prepared to support utilities in collecting this data, as some may not have a collection process, their current tracking systems may not obtain this data, or, in some cases, they might push back on tracking requirements out of fear of negative public opinion (as was the case in California).<sup>52</sup>

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49 Raucher, R., Rothstein, E., and Mastracchio, J. (2019, April 17). *Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector*. The American Water Works Association. <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/DevelopingNewFrameworkForAffordability.pdf?ver=2020-02-03-090519-813>.

50 Raucher, R., Rothstein, E., and Mastracchio, J. (2019, April 17). *Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector*. The American Water Works Association. <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/DevelopingNewFrameworkForAffordability.pdf?ver=2020-02-03-090519-813>

51 State Insights on Renewing a Cross-Government for Water Affordability. Aspen Institute. (2020, October 22). [https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10\\_22\\_2020\\_final.pdf](https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10_22_2020_final.pdf)

52 Walton, B. (2018, November 20). *Counting Homes Cut Off from Water Is A Data Collection Nightmare*. Circle of Blue. <https://www.circleofblue.org/2018/world/counting-homes-cut-off-from-water-is-a-data-collection-nightmare/>.



## Quiz

### How can utilities work with residents to achieve water affordability?

- Use a one size fits all measure for water rates and programs
- Create a committee of residents to audit the water utility and take its recommendations seriously
- Conduct a needs assessment with community residents to understand specific problems

Answers: b, c

*Disadvantaged Communities • While the exact definition is usually left to funder discretion, disadvantaged communities normally refers to communities with poor socioeconomic outcomes or existing environmental vulnerabilities (e.g. air and water pollution contamination, extreme flooding impacts, etc.) Many federal and state programs require that a portion of funding be set aside for disadvantaged communities or those with economic hardships.*

*Consumer Bill of Rights – A consumer bill of rights provides legal grounds for ratepayer complaints and provides guidance on rate-setting from a consumer protection angle.*

This baseline data can help states regulate water affordability and water assistance programs. Additionally, to improve outcomes, the state should require that utilities evaluate their water affordability and water assistance programs, and if a program is inadequate, the state can consider intervention<sup>53</sup>. It is critical to note, too, that states should support any mandates for data collection or customer assistance programs with accompanying funding and technical support. Without resources, only communities with the capacity to act will stay in compliance, and economically disadvantaged communities will struggle.

## Incentivize Affordability Efforts and Remove Policy Barriers

One way to ensure that utilities are keeping rates affordable is for a state to enact a consumer bill of rights, which provides legal grounds for ratepayer complaints, provides guidance on rate-setting from a consumer protection angle, requires the implementation of direct assistance programs designed for vulnerable populations, and halts water shutoffs due to an inability to pay<sup>54</sup>. In an effort to increase customer transparency, DC Water (Washington D.C.) created a [Consumer Bill of Rights](#).

Some states prohibit utilities from charging different rates to different customers. Amending such laws would grant utilities the opportunity to separate customer classes and charge rates based on a number of factors, including income<sup>55</sup>. A consortium of water utility associations commissioned “[Navigating Legal Pathways to Rate-Funded Customer Assistance Programs](#),” and the report contains 2-3 summaries for each state that cite their policies around charging different rates to different residential customers.

To increase cost-efficiencies and resource sharing, many states have created laws to incentivize or mandate regionalization (i.e. the merging of smaller utilities). State support has entailed coordination, sharing best practices among utilities, creating flexible legislation that allows utilities to reorganize, adjusting governance to allow for regionalization, and encouraging watershed scale planning to implement more environmentally

53 Taylor, M., Orduño, S., Damaschke, M., Gaines, G., and Campbell, L. (2015, May 13). *Statement on Water Affordability vs. Water Assistance for DWSD Low Income Customers*. Michigan Welfare Rights Organization. <https://www.mwro.org/wp-content/uploads/2016/05/GLWAAffordability051315-final.pdf>

54 Grinshpun, M. (2020). (rep.). *Measuring and Addressing Water and Waste Water Affordability in the United States*. Boston University Institute for Sustainable Energy. Retrieved from <http://www.bu.edu/ise/files/2020/06/measuring-and-addressing-water-and-waste-water-affordability-in-the-united-states-june2020-final.pdf>

55 US Water Alliance. (2018). *Redefine Affordability for the 21st Century. One Water for America Policy Framework*. [http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa\\_listen\\_big5\\_022318\\_a.pdf](http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa_listen_big5_022318_a.pdf)

and financially sustainable projects. And in lieu of regionalization, states also can incentivize larger systems to collaborate with smaller utilities as partners and share resources while maintaining separate governance structures;<sup>56</sup> a [2017 EPA report](#) outlines state programs and policies that support cooperative strategies among water supply systems.

To add capacity or help improve infrastructure efficiency (as means of increasing water the affordability), other states may consider legislation that facilitates partnerships between public utilities and private companies. Private companies can serve as consultants and deploy technology to help utilities improve capital planning, make asset management decisions, and add administrative capacity. Note that there is an important distinction between completely privatizing a water system and considering public-private partnerships — the former model presents cause to be wary, as advocates would have to engage state regulatory bodies when seeking affordable and equitable rates, whereas public-private partnerships focus on sharing resources and expertise, and integrating community engagement which ensures that equity measures are at the forefront, and democratic processes are being honored during any decision-making and planning efforts that would impact the general public<sup>57</sup>.

States can also approve social impact investing to create impact bond funds that municipalities can use to implement sustainable water solutions. Impact bonds allow private investors to provide a loan to a public entity (in this case the utility) to cover upfront costs for projects that can provide both social and environmental benefits, and financial returns (loan terms differ, but the public entity pays back the investor.) This practice is seen more commonly in the global market, but as more investors seek socially-conscious opportunities for their wealth, there have been cases of environmental impact bonds implemented in the United States, primarily for stormwater management projects; for example, the Chesapeake Bay Foundation is using environmental impact bonds in Hampton, Va. to pilot green stormwater infrastructure projects to manage stormwater.<sup>58</sup>

*Social Impact Investing – Also called socially responsible investing, or ESG (environmental, social and governance) investing, social impact investing focuses on companies and organizations that promote ethical and conscientious considerations,*

*Green Stormwater Infrastructure (or Natural Infrastructure) – Green stormwater infrastructure refers to the practice of using nature-based water management techniques that protect, restore, or mimic the natural water cycle as a means of preventing flooding, improving ecosystem health, and offering many other community benefits.*

56 *State Insights on Renewing a Cross-Government for Water Affordability*. Aspen Institute. (2020, October 22). [https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10\\_22\\_2020\\_final.pdf](https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10_22_2020_final.pdf)

57 Food and Water Watch. (2016, February). *The State of Public Water in the United States*. [https://foodandwaterwatch.org/wp-content/uploads/2021/03/report\\_state\\_of\\_public\\_water.pdf](https://foodandwaterwatch.org/wp-content/uploads/2021/03/report_state_of_public_water.pdf)

58 Environmental Impact Bonds. Chesapeake Bay Foundation. (2021). <https://www.cbf.org/how-we-save-the-bay/programs-initiatives/environmental-impact-bonds.html>

Another way states can use the private market to support public systems is to create conditions for innovative water technology and ensure that bureaucratic red tape doesn't slow technological advancements. Streamlining processes; creating regional standards or specifications for innovation across multiple states; securely collecting, analyzing and sharing data/results; and allowing technology-testing opportunities can open the market<sup>59</sup>. Also, there should be special attention to testing priorities, innovations, and safeguards as they relate to BIPOC and low-income populations, so as not to increase surveillance of vulnerable, targeted communities who already feel that their privacy is threatened or experience challenges when engaging with institutions.<sup>60</sup> Actions should seek to prevent and mitigate unintended consequences that could negatively and disproportionately impact vulnerable communities. Ensuring resident engagement in the design and rollout phases will be essential to develop trust for proposed technology innovations and changes.

For more information about impact investing, see the [Infrastructure](#) section.

Finally, states have a big role to play in regulating private industry water use, mainly by ensuring that big water polluters and users pay their fair share and don't externalize the cost of doing business to residential water customers — when the breadth of industrial use issues are addressed (e.g. rates, appropriate taxing, water pollution clean-up, etc.), it can lower how much residents pay. Industrial agriculture is another area where state intervention can support ecosystem health and community affordability outcomes, through funding conservation investments, elevating land management best practices, and developing policies to hold polluters accountable to water quality standards<sup>61</sup>. For example, the Wisconsin Department of Natural Services allows [Wisconsin Pollutant Discharge Elimination System](#) permit holders to use adaptive management strategies that reduce phosphorus as a means of complying with discharge standards (as opposed to merely treating phosphorous discharge, which is the primary contaminant

59 Berry, S., and Huckins, S. (2019). One Water for America State Policymakers' Toolkit. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/publications/State%20Policymakers%27%20Toolkit.pdf>

60 *End the Surveillance on Black Communities*. M4BL. (2020, June 24). <https://m4bl.org/policy-platforms/end-surveillance/>

61 Berry, S., and Huckins, S. (2019). One Water for America State Policymakers' Toolkit. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/publications/State%20Policymakers%27%20Toolkit.pdf>

from agricultural runoff). Shifting treatment costs and responsibilities to the industries that contribute to poor water quality can alleviate the inclination to pass along those costs to residents.

## Prioritize Funding, Low-Cost Financing, and Technical Assistance

*Asset Management – Asset management is the process by which utilities account for, track, and monitor the infrastructure that makes up water, wastewater, or stormwater systems.*

Whether water infrastructure investments are planned (i.e. driven by strategic asset management decisions), or reactive (i.e. instigated by infrastructure failures such as water main breaks), they must be paid for.

While the federal government is largely responsible for creating water infrastructure funding and financing program and policies, states play an integral role in distributing federal funds that come through the Clean Water State Revolving Fund and Drinking Water State Revolving Fund, for example. Additionally, federal monies often do not cover enough of the costs that emerge at the local level, whether they pertain to infrastructure investments, or programs and initiatives related to water affordability. In the absence of sufficient federal and state funding and financing opportunities, utilities often rely on customers to generate sufficient revenue to cover investment needs, which creates affordability concerns.

Increasing the availability of low-cost financing and funding (grants) can minimize rate increases and preserve affordability while ensuring that infrastructure is adequately maintained. State governments should do gap or needs analyses and budget monies accordingly, and they also should set eligibility criteria in a way that prioritizes vulnerable, economically disadvantaged communities.

In addition, to make sure that the lowest-income households benefit from funding and project decisions, states can provide administrative support to municipalities who don't have a full cadres of resources when applying for financing.<sup>62</sup> A few examples of administrative support may include walking through the grant application process; providing a preliminary check of the application to ensure that it has all necessary components; and dedicating staff time or money to helping municipalities gather necessary documentation and data. States also can provide water utilities with

<sup>62</sup> *State Insights on Renewing a Cross-Government for Water Affordability*. Aspen Institute. (2020, October 22). [https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10\\_22\\_2020\\_final.pdf](https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10_22_2020_final.pdf)

technical assistance that improves operations and delivery efficiencies and helps with financial management, both of which can reduce customer costs.<sup>63</sup>

## Institute Water Loss Prevention and Efficiency Programs

Every day, billions of gallons of treated water are lost through water main breaks and leaky pipes. This loss is not cheap — depending on where the leaks occur, utilities may recoup the costs via customer charges, either through a rate increase or an increased fixed fee, either of which potentially exacerbate water affordability issues<sup>64</sup>.

The American Water Works Association issues industry recommendations and best practices on managing the massive volume of water lost to leaks and main breaks. Additionally, the Natural Resources Defense Council (NRDC) has developed two versions of model legislation to help utilities ascertain and address levels of loss (Version A, designed for states with regulatory agencies and utilities that have some routine practice with annual audits, creates a phased, comprehensive water loss audit program using validated reports to inform water loss standards. Version B, designed for states who don't have an established water loss audit practice, accounts for time to educate policymakers and utilities, and includes a prerequisite step of creating a water audit report.)<sup>65</sup> There is also an [NRDC interactive map](#) that shows how states are managing water loss.

63 Berry, S., and Huckins, S. (2019). *One Water for America State Policymakers' Toolkit*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/publications/State%20Policymakers%27%20Toolkit.pdf>

64 NRDC. (2020, December 4). *Cutting Our Losses*. NRDC. <https://www.nrdc.org/resources/cutting-our-losses>.

65 NRDC. (2016, October 3). *Model State Legislation for Utility Water Loss Audits*. NRDC. <https://www.nrdc.org/sites/default/files/Model-State-Legislation-for-Utility-Water-Loss-Audits.pdf>



## State Case Studies

The following case studies highlight state-level efforts to promote water affordability.

### North Carolina, Combined Funding Programs<sup>66</sup>

In 2013, North Carolina streamlined its Drinking Water SRF, Clean Water SRF, and Community Development Block Grant infrastructure funding to help bring about comprehensive community planning and position funds to have greater impact. As a part of its effort to improve efficiencies, the state provided grants to water utilities so they could assess their systems and determine next steps. The State Water Infrastructure Authority was created that same year to develop a master plan that would provide recommendations on how to optimize funding sources, share best and innovative practices for water management, and evaluate water system concerns.

### California, Statewide Safe Drinking Water Solution (Funding)<sup>67</sup>

In 2012, California passed AB 685, a bill that established water as a human right. Seven years later, the governor passed the Statewide Safe Drinking Water Fund to ensure that vulnerable communities have access to safe drinking water; in large part, the Fund was a response to strong stakeholder disapproval about a potential state-instituted water charge. The Fund (which mainly receives money from the Greenhouse Gas Reduction Fund) was included in the state budget and provided \$130 million to pay for drinking water systems operations and maintenance costs; it also can be used to support diverse efforts and populations such as water system consolidation, well-owners etc. Even with this breakthrough, following the pandemic, customers will owe water utilities more than \$1 billion in outstanding debt.



<sup>66</sup> Berry, S. and Huckins, S. (2019). *One Water for America State Policymakers' Toolkit*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/publications/State%20Policymakers%27%20Toolkit.pdf>

<sup>67</sup> ACWA. (2019, July 24). *Statewide Safe Drinking Water Funding Solution*. Association of California Water Agencies. <https://www.acwa.com/trust/>

## Texas Water Development Board<sup>68</sup> (Regionalization)

The Texas Water Development Board (TWDB) is responsible for the Texas water supply and manages SRF distribution. The TWDB provides low-cost financing (State Water Implementation Fund) to support the regionalization of smaller, economically struggling utilities and economically sound larger utilities. Additionally, it funds a Chief Financial Officer to improve financial management for economically distressed systems. TWDB has developed a program to aid utilities in developing asset management practices and creating capital improvement plans.

## Kentucky, Senate Bill 409<sup>69</sup>

Since the 1970s, Kentucky has actively been consolidating or regionalizing its (originally) 3,000-plus public water systems and treatment plants. In 2000, to create a planning process for water services, the state passed Senate Bill 409, which authorized the Kentucky Infrastructure Authority to develop programs to regionalize water systems and improve customer access to water. Regions that meet programming requirements can apply for state funding to support local water projects. The program has been a success — between 2000 and 2017, more than \$800 million of state funding went toward local project development. The law also allowed municipalities to share water services outside of municipal boundaries without annexation, improving access to water. On the administrative and peer-sharing side, the bill allowed funds to go toward the employment of water service coordinators in each region, and it created a council for regions to come together and share best practices.

## California, Colorado and Minnesota, State Approval of Onsite Non-Potable Water Systems<sup>70</sup> (Efficiency)

Reuse technologies that treat non-potable water (e.g. used for toilet and irrigation purposes) can reduce usage, and thus, water costs. California, Colorado, and Minnesota have all passed policies or guidance to develop risk-based water quality standards to allow for onsite non-potable water systems. These policies establish when and where non-potable water reuse technologies are allowed, what an onsite system requires, and what the water quality standard should be — the legislation has improved the market for non-potable technology, brought down the cost of these systems, and increased options for addressing water affordability.

68 State Insights on Renewing a Cross-Government for Water Affordability. Aspen Institute. (2020, October 22). [https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10\\_22\\_2020\\_final.pdf](https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10_22_2020_final.pdf)

69 Berry, S. and Huckins, S. (2019). *One Water for America State Policymakers' Toolkit*. US Water Alliance. <http://uswateralliance.org/sites/uswateralliance.org/files/publications/State%20Policymakers%27%20Toolkit.pdf>

70 Ibid.



## TAKEAWAY

- States can create frameworks that direct utilities to report about water affordability efforts and outcomes. This may begin by requiring utilities to track data about which and how many customers encounter affordability concerns, and as the scope of the water affordability crisis becomes clear, states can delineate best practices to achieve improved outcomes.
- Regionalization, proactively managing sources of pollution, supporting public-private partnerships, removing barriers to income-based water rates, and providing administrative or technical support can help utilities reach affordability standards and better secure funding and financing.
- States can support water affordability by passing legislation that sets standards on maximum levels of water loss and relevant management practices.

## AFFORDABILITY POLICY AND PRACTICE: LOCAL GOVERNMENT/WATER UTILITIES

Utilities and municipalities are on the frontlines of ensuring water affordability and equity. Within the legal and programmatic frameworks set by federal and state governments, local utilities and municipalities have the power to implement responsive and impactful policies and programming to achieve affordability outcomes; specifically, they can:

- set equitable rates and transparent billing practices.
- create customer assistance programs.
- develop good asset management and workforce development practices.
- assess community issues and limit water shutoffs.

Utilities also must remember to engage the most impacted neighborhoods or residents during any effort to address affordability concerns. In 2020, CNT and IB Environmental created an [Water and Community Affordability Action Planning Guide](#); its resources and downloadable worksheets can help residents and community leaders assess water and community affordability more broadly.

*Equitable Rate Structure – Rate structures that account for consumer type and ability to pay (also see “equity” entry)*

## Set Equitable Rates and Transparent Billing Practices

When bills are kept affordable and transparent, households are more likely to pay the bill, subsequently increasing the utility's overall revenue.<sup>71,72</sup> Equity in a rate setting context has many facets, one of which is considering a household's broader financial context (i.e. their ability to pay). Transparent billing practices (i.e. avoiding hidden or unexplained fees) help households benchmark usage from billing period to billing period.

## Create Customer Assistance Programs

Water utilities should consider creating customer assistance programs (CAPs) that help low-income households, or households that face unforeseen financial circumstances; a 2016 EPA survey found that almost 29 percent of utilities offered a customer assistance program<sup>73</sup>. CAPs can include a flexible water payment program, forgiveness of past debt after consistently paying a lower rate over a period of time, bill discounts, and free access to water conservation and efficiency fixtures to reduce water use and lower water bills. CAPs also benefit utilities by allowing them to practice corporate social responsibility, improve public relations, and enrich financial health by reducing administrative and service costs related to debt collection (e.g. cost of contracting with a debt collection agency) and service disconnection or reconnection<sup>74</sup>.

Utilities are encouraged to partner with nonprofits and social service organizations that regularly interact with vulnerable customers. Also, it is imperative that utilities make sure their programs are accessible to all households, which may require meeting people where they are, implementing multiple methods of outreach and engagement, and ensuring that there are no disqualifying factors for those who would benefit from a CAP (i.e. being a renter, language barriers, documentation status, etc.)

71 Green, E. (2017, October 9). *US Households Under Pressure from Rising Water Bills*. The Source Magazine. <https://www.thesourcemagazine.org/us-households-pressure-rising-water-bills/>.

72 *State Insights on Renewing a Cross-Government for Water Affordability*. Aspen Institute. (2020, October 22). [https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10\\_22\\_2020\\_final.pdf](https://www.aspeninstitute.org/wp-content/uploads/2020/11/Summary-Report-Meeting-10_22_2020_final.pdf)

73 Cromwell, K., Kostiuk, K., and Locklear, H. (2018, October 1). *The Future of Affordability Programs*. Water World. <https://www.waterworld.com/water-utility-management/article/16190095/the-future-of-affordability-programs>.

74 WIRFC, AWWA, AMWA, NACWA, NAWC, WEF, and WRF. (2016, April). *Drinking Water and Wastewater Utility Customer Assistance Programs*. EPA. [https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww\\_utilities\\_cap\\_combined\\_508.pdf](https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww_utilities_cap_combined_508.pdf).

Learn more about equitable rate setting and the benefits of transparent billing practices in the [Infrastructure](#) and [Utilities](#) sections, respectively.

## Develop Good Asset Management and Workforce Development Practices

Aging and degraded water infrastructure is a leading driver of unaffordable water rates, because utilities pass on the burden of paying for water infrastructure investments to customers. Utilities must improve asset management and capital planning practices to ensure that infrastructure investments decisions are made cost-effectively and strategically, and infrastructure investments target economically disadvantaged communities that experience high water costs and have experienced historical disinvestment<sup>75</sup>.

To further equity measures and improve economic outcomes in disadvantaged communities, utilities should commit to supporting workforce development and disadvantaged business enterprises (women-owned or minoritized-owned businesses) when seeking companies to update or replace infrastructure. By hiring disadvantaged business enterprises or supporting workforce development programs, the utility directly affects job opportunities and indirectly supports the financial stability of people who historically have been denied access to increasing their income and wealth-building potential<sup>76</sup>.



Profile: [Rev. Falcia Campbell](#)

## Assess Community Issues and Limit Water Shutoffs

Before utilities decide which programs or policies to pursue, they should first gather information on their infrastructure system, service area, and issues of chief concern to their customers (e.g. leaks, unaffordable bills, water quality concerns, etc.).<sup>77</sup> Additionally, they should ensure that water use metrics are accurate.<sup>78</sup>

Critically, as utilities plan to develop strategies to achieve affordable water outcomes, they must commit to ceasing involuntary water shutoffs determined by inability to pay. A National Bureau of Economic Research study that

75 Roller, Z., and Mayorga, D. (2017). *An Equitable Water Future: A National Briefing Paper*. US Water Alliance. [http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa\\_waterequity\\_FINAL.pdf](http://uswateralliance.org/sites/uswateralliance.org/files/publications/uswa_waterequity_FINAL.pdf)

76 Ibid.

77 Godwin, A. (2019, July 1). *Affordability Through Advanced Asset Management*. Water World. <https://www.waterworld.com/water-utility-management/asset-management/article/14037267/affordability-through-advanced-asset-management>.

78 Hoffberger, C. (2015, September 4). *How Accurate Is Your Water Bill? Residents Complain They're Being Overcharged; City Disagrees*. The Austin Chronicle. <https://www.austinchronicle.com/daily/news/2015-09-04/how-accurate-is-your-water-bill/>.



Profile: [Avika Durr](#)

looked at the impacts of water shutoffs on COVID-19 rates suggested that if a nationwide moratorium on utility shutoffs has been in place from March-November 2020, there could have been close to 15 percent fewer deaths and an 8.7 percent reduction in infections.<sup>79</sup> In spring 2020, many municipalities and utilities did place temporary moratoriums on water disconnections, but due to a lack of data on the number of household shutoffs, it is unclear how many reconnections have occurred.

Outside of the context of a pandemic, the socioeconomic fallout and health impacts that result from having water shut off can be significant. From increased anxiety and depression, to bankruptcy filings and foreclosure warnings, water shutoffs rarely incentivize individuals to pay their bills: They simply compound generational poverty and leave already vulnerable communities in poorer conditions<sup>80</sup>.

### Local Government / Water Utility Case Studies

The examples on the next page share how local governments and utilities have worked to address the root causes of unaffordable water bills.



Profile: [Cheryl Gregg](#)



Profile: [Robbie Burks](#)



<sup>79</sup> Jowers, K., Timmins, C., Bhavsar, N., Hu, Q., and Marshall, J. (2021). *Housing Precarity and the COVID-19 Pandemic: Impacts of Utility Disconnection and Eviction Moratoria on Infections and Deaths Across US Counties*. National Bureau of Economic Research. <https://doi.org/10.3386/w28394>.

<sup>80</sup> Feinstein, L., Shimabuku, M., and Pierce, G. (2020, April 20). *When Utilities Shut Off Water for the Poor, We Are All at Risk*. Pacific Institute. <https://pacinst.org/when-california-utilities-shut-off-water-for-the-poor-we-are-all-at-risk/>.

## The Philadelphia Water Department Affordability Program (Rate Structuring)

In 2017, Philadelphia adopted a water affordability program for low-income customers and those with financial hardships. The [Tiered Assistance Program \(TAP\)](#) is designed to help eligible customers afford their monthly water bills by charging them based on pre-tax monthly income instead of water usage. To continue water conservation, the program provides educational material, free leak detection tests, and low-flow plumbing fixtures<sup>81</sup>.

TAP customers include low-income households, seniors, and those with a special hardship such as (but not limited to) a growing household, job loss, serious illness, family loss, and domestic violence<sup>82</sup>. To ensure qualifications, the enrollment process requires submission of documents that prove residency and income eligibility, along with social security numbers of residents<sup>83</sup>. (Important to note that the social security number requirement may limit access to mixed-status households, i.e. households with both documented and undocumented residents).

When customers file an application, they can request a 14-day water shutoff delay for the, and no shutoffs occur while the application is being reviewed<sup>84</sup>. Those who qualify for TAP must make punctual payments for two years, and after that period, any previous bill balance is forgiven.

While the program is relatively new, and studying it can help other utilities understand the costs of administering such a program. Between January 1 and December 31, 2019, TAP had fully processed more than 23,000 applications and enrolled 13,701 customers. As of December 2019, there were 15,258 active TAP participants<sup>85</sup>.

## City of Atlanta Department of Watershed Management<sup>86</sup> (Customer Assistance Programs)

The City of Atlanta Department of Watershed Management is a regional utility. Since 1995 it has offer the “Care and Conserve” customer assistance program that, through a nonprofit partner, provides discounts on customer bills and water conservation measures/ plumbing repair for income-eligible consumers. The “both and” aspect of the program alleviates addresses the immediacy of a household’s financial while, in the long term, seeking to address some of the causes of unaffordable bills long-term.

A key eligibility criterion is having an income that is 200 percent of the poverty index, as defined by the Federal Office of Management and Budget. The program has a special provision for income-eligible seniors, who are offered a 30 percent discount on their water and wastewater bills. The program is not accessible to renters, but the department is working with local housing authorities, and landlords that have applied to the program receive priority with repair requests to reduce costs that could otherwise be passed on to renters.

81 Kearns, D. (2017, November 8). RELEASE: *What Cities Can Learn from Philadelphia’s Water Affordability Program*. Center for American Progress. <https://www.americanprogress.org/press/release/2017/11/08/442445/release-cities-can-learn-philadelphias-water-affordability-program/>.

82 Water Bill Customer Assistance. City of Philadelphia. (2020, November 30). <https://www.phila.gov/services/water-gas-utilities/pay-or-dispute-a-water-bill/water-bill-customer-assistance/>

83 Water Bill Customer Assistance. City of Philadelphia. (2020, November 30). <https://www.phila.gov/services/water-gas-utilities/pay-or-dispute-a-water-bill/water-bill-customer-assistance/>

84 Water Bill Customer Assistance. City of Philadelphia. (2020, November 30). <https://www.phila.gov/services/water-gas-utilities/pay-or-dispute-a-water-bill/water-bill-customer-assistance/>

85 Philadelphia Water Department. (2021, January). Direct Testimony of Susan M. Crosby and RaVonne A. Muhammad on behalf of The Philadelphia Water Department. Phila.gov. <https://www.phila.gov/media/20210115161911/PWD-Statement-No.-5-Direct-Testimony-and-Schedules-of-Susan-M.-Crosby-and-Ravonne-A.-Muhammad.pdf>

86 Isaac Berahzer, S. (2020, December 4). City of Atlanta Department of Watershed Management – Care and Conserve Program [web log]. <https://www.ibenvironmental.com/blog/2020/12/4/city-of-atlanta-department-of-watershed-management-care-amp-amp-conserve-program>

## North Carolina, Orange County Water and Sewer Authority Customer Assistance Program<sup>87</sup> (Customer Assistance Programs)

In accordance with North Carolina state law, Orange County Water and Sewer Authority (OWASA) is prohibited from setting rates that are based on household income. In order to better support their low-income and fixed income customers, OWASA has increased payment periods, supported water conservation efforts, and shared program assistance information to households at risk for shutoff. The utility has also initiated a “Care to Share” program in which financially-able customers opt in to rounding their bill to the next dollar or contributing an additional amount to fund, and OWASA pairs these donations with local nonprofit dollars.

Even with the nonprofit cost share, the program isn’t fully funded. But the program structure exists and can be amended as the utility works to improve customer affordability outcomes.

## Detroit, Extended Moratorium on Water Shutoffs

In 2014, Detroit made international headlines when tens of thousands had their water service disconnected due to inability to pay increasingly high water bills<sup>88</sup>. In December 2020, Mayor Mike Duggan announced that the Detroit Water and Sewerage Department would extend its COVID-19-initiated moratorium on water shutoffs through 2022, citing the importance of access to clean water<sup>89</sup>.

The extended moratorium has been cheered on by local frontline organizations such as We the People of Detroit and People’s Water Board Coalition, who have been calling for a similar program for many years. However, these groups know that a ban on shutoffs is not sufficient if rates and bill affordability aren’t addressed, so they are continuing to apply pressure to decision-makers, requesting a move away from temporary billing assistance to locally responsive water affordability.<sup>90 91</sup>

As Detroit works to reconnect household water service, it will cover the costs of unpaid bills with state and federal support. This underscores the need for a highly coordinated and collaborative approach that makes addresses affordability as efficiently and compressively as possible<sup>92</sup>.

87 WIRFC, AWWA, AMWA, NACWA, NAWC, WEF, and WRF. (2016, April). *Drinking Water and Wastewater Utility Customer Assistance Programs*. EPA. [https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww\\_utilities\\_cap\\_combined\\_508.pdf](https://www.epa.gov/sites/production/files/2016-04/documents/dw-ww_utilities_cap_combined_508.pdf)

88 Rushe, D. (2014, September 29). *Blow to Detroit’s Poorest as Judge Rules Water Shutoffs Can Continue*. The Guardian. <https://www.theguardian.com/world/2014/sep/29/detroit-water-shutoffs-legal-judge-bankruptcy-revenue>

89 Ellison, G. (2020, December 9). *Detroit Water Shutoff Ban Extended to 2022, May Become Permanent*. Michigan Live. <https://www.mlive.com/public-interest/2020/12/detroit-water-shutoff-ban-extended-to-2022-may-become-permanent.html>

90 Rahman, N. (2020, December 8). *Detroit Water Shutoff Protections Extended Through 2022, Permanent Stop Planned*. Detroit Free Press. <https://www.freep.com/story/news/local/michigan/detroit/2020/12/08/watch-live-duggan-water-shut-offs-coronavirus-updates/6488968002/>

91 Lakhani, N. (2020, June 23). *Revealed: Millions of Americans Can’t Afford Water as Bills Rise 80% in a Decade*. The Guardian. <https://www.theguardian.com/us-news/2020/jun/23/millions-of-americans-cant-afford-water-bills-rise>

92 Williams, C. (2020, December 8). *City of Detroit to Continue Moratorium on Water Shutoffs*. AP NEWS. <https://apnews.com/article/health-coronavirus-pandemic-detroit-gretchen-whitmer-9a22bf11144cf2049e110718288b925a>



## Phoenix Water Equity Initiative (Following Community Lead and Saying “No” to Disconnections)<sup>93</sup>

According to a 2020 report by the Phoenix Water Services Department, it worked with a citizen advisory committee to audit its policies for barriers to affordable water access. The committee found that while the water rates were on the lower end when compared to major cities throughout the nation (low fixed charges that cover minimum essential water used), many households are below the poverty line and struggle to afford the bill, especially given that water, wastewater, and solid waste bills are bundled together as a “City Services Bill.”

As a result of the audit, through giving citizens a voice in the water management decision-making process, Phoenix was forced to think of water bill affordability in the context of other household bills when enforcing payment. The following recommendations were made:

- The utility can improve equity by addressing the fixed fee structure separate from the rate structure (appears to be higher when compared to other Arizona municipalities).
- Instead of continuing to increase late fees, the committee suggested removing late fees after service disconnection.
- In place of service disconnections, the utility should consider flow-restrictions (i.e. lowering water pressure to minimal levels) so households can have access necessary water and still be incentivized to pay missed bills

The committee also advocates for increased funding to the credit program to support additional households.

### TAKEAWAY

- Utilities can more effectively improve water affordability with a two-pronged approach. First, reduce how much money customers are paying by implementing equitable rate structures and customer assistance programs. Second, ensure that utilities employ strong asset management practices that reduce the overall costs of managing the water system.
- Community activism is at the forefront of achieving water affordability. Coalition-building among individuals and groups can surface and amplify community issues, and effectively command the attention of decision-makers.

<sup>93</sup> Water Equity Initiative (p. 34). (2020). City of Phoenix Water Services Department.  
[https://www.phoenix.gov/waterservicessite/MediaAssets/WSD%20Home%20Page/EquityPaper\\_2020-06-23\\_Final.pdf](https://www.phoenix.gov/waterservicessite/MediaAssets/WSD%20Home%20Page/EquityPaper_2020-06-23_Final.pdf)



## ADDITIONAL INFORMATION AND RESOURCES

### Quiz

**What actions should states consider in order to work towards equitable water affordability? (Choose all that apply)**

- a. Establish water affordability standards based off the median household income
- b. Require utilities to complete program evaluation of customer assistance programs and implement next steps
- c. Support privatization of water utilities
- d. Amend state laws to allow income-based water bills
- e. Create policies to increase utility capacity, for example through coordination of services between utilities, regionalization, or collaboration between utilities
- f. Develop legislation to require that utilities work on water loss prevention and efficiency
- g. Roll back water regulations on private industries
- h. Set aside budget allocations for water affordability programs

Answers: b, d, e, f, h

### Why Is Water Unaffordable?

[An Overview of the “New Normal” and Water Rate Basics](#) (pgs. 2-6)

This brief report by the Pacific Institute explores the reasons behind decreasing water affordability in the state of California (and are relevant for many cities across the United States).

[Project Issue Brief: Water Affordability](#) (pgs. 1-2)

This brief is part of the Center for Neighborhood Technology Great Lakes Water Infrastructure Project and discusses why water is unaffordable.

[Safeguarding Water Affordability](#) (pgs. 6-12)

This brief report, written by the Bipartisan Policy Center, highlights the key factors that increase pressure on utilities to raise costs of water for consumers.

[The Case for Fixing the Leaks](#) (pgs. 2-4)

This report, written by the Center for Neighborhood Technology, is a useful resource to learn more on the effect of water supply system aging infrastructure on water affordability.

[The United State\(s\) of Water](#)

Created by the American Water Works Association and the Water Environment, this series of infographics offer a brief overview of the key causes and potential solutions to work towards water affordability in the [United States overall](#), the [Midwest](#), and [Northeast](#).

[Water/Color: A Study of Race and Water Affordability](#) (pgs. 2-19)

This report by the NAACP delves into the historic actions and policies that have led to the lack of water affordability.

[Guardian Investigation into U.S. Water Poverty](#)

Guardian US commissioned an analysis of the cost and affordability of water and sewage services in 12 diverse American cities.

## Impacts

[America's Secret Water Crisis: National Shutoff Survey Reveals Water Affordability Emergency Affecting Millions](#) (pgs. 2-13)

This report offers relevant information on the magnitude of water shut-offs, a key impact of unaffordable water bills, and the trends of water burden across multiple demographics; an accompanying primer can be found [here](#).

[Detroit's unaffordable water hints at a U.S. crisis to come](#)

This brief video provides an overview of the costly water crisis in Detroit, but the concerns apply widely across the nation. It is a useful start to understand the magnitude of how unaffordable water bills impact lives, and the reasons for the disproportionate impacts.

[The Invisible Crisis: Water Unaffordability in the United States](#) (pgs. 6-8, 11-13)

This report provides a detailed analysis of the United States water cost crisis. The third section of the report, titled "The Real Costs and Consequences of Unaffordable Water," offers a concise summation of the numerous consequences of unaffordable water bills on families and households.

## State Actions

[Consumer Bill of Rights - Illinois](#)

This document is an example of what a state may use as a consumer bill of rights.

[Consumer Bill of Rights - Nevada](#)

This is an example of what a state might typically include in its consumer bill of rights.

[Measuring and Addressing Water and Waste Water Affordability in the United States – Boston University](#) (pgs. 27-28)

This report offers a succinct analysis of the opportunities that state government can take to improve the affordability of water.

[One Water for America State Policymakers' Toolkit](#)  
(pgs. 3-19)

This report consolidates major ideas about a states' roles in water affordability policy. Based on listening sessions held by U.S. Water Alliance, the report provides several case studies from states across the nation for each of the seven big ideas.

[Redefine affordability for the 21st Century - US Water Alliance](#) (pg. 8)

This brief discusses water affordability solutions, from the utility to the federal level. In the relevant pages, potential solutions at the state level are discussed, along with case studies documenting implementation of these solutions.

[State Insights on Renewing a Cross-Government for Water Affordability](#) (pgs. 1-5)

This summary of a water issues forum discusses how state governments can support water affordability at the household and utility level.

## Utility Actions

[A Water Utility Manager's Guide to Community Stewardship](#)  
(pgs. 53-70)

This report helps utilities with different community engagement processes; the relevant pages highlight several case studies of utilities working with communities on different types of projects.

[Assessment of Water Utility Low-Income Assistance Programs](#) (pgs. 28-52)

This document, published by the Division of Water and Audits, is a way to see how to improve customer assistance programs in California. It details different types of assistance, program eligibility, and recommendations.

[Beyond the Water Bill](#) (pgs. 2-12)

A recent Center for Neighborhood Technology report, this piece focuses on water utility bills, and mechanisms to make them more affordable. It includes an updated definition of affordability as well as how utilities can implement affordable water costs while maintaining operations.

[Case Studies of Sustainable Water and Wastewater Pricing](#)

(pgs. 5-20)

This document is a collection of case studies of how utilities around the United States are working towards setting rates at acceptable levels while covering maintenance and infrastructure costs.

[Drinking Water and Wastewater Utility Customer Assistance Programs](#) (pgs. 7-13, 24-28)

This report published by the EPA delves into the basics of customer assistance programs and provides example programs that utilities can implement. Additionally, it provides metrics on how utilities can determine the success of their customer assistance program.

[Setting Small Drinking Water System Rates for a Sustainable Future](#) (pgs. 31-32)

This report by the EPA informs how small systems can set water rates. It can be helpful to know what strategies utilities are currently using when advocating for affordability.

[Thinking Outside the Bill](#) (pgs. 7-12)

This report provides ideas to utilities on how to support water affordability for low-income households in their community.

[Water Affordability in Northeastern Illinois](#) (pgs. 30-44)

This report analyzes water affordability in northeastern Illinois and determines why water is unaffordable. It then moves onto various solutions that utilities and municipalities (across the nation) can implement in partnership with assistance from multiple levels of government and other organizations.

[Water Rates: Water Affordability](#) (pgs. 3-6)

This short report reviews water affordability programs in California and provides a multitude of options to help increase water affordability for low-income households.

[An Equitable Water Future Cleveland](#) (pgs. 10-14)

This document was developed by the Cleveland Water Equity Taskforce to advance equity in water management.

Statement on Water Affordability vs. Water Assistance for DWSD Low Income Customers (pgs. 1-8)

This statement written by advocacy organizations in Detroit criticizes the water assistance program; it also provides an example of how to write a statement and what are factors an advocate can consider when pushing for utility-based programs.

Ten Point Water Affordability Plan (pg. 1)

This is a 10-point plan developed by The Water Unity Table, a coalition of Detroit communities. It outlines the organizer and advocate perspectives on achieving water affordability.

